

FIG. 1

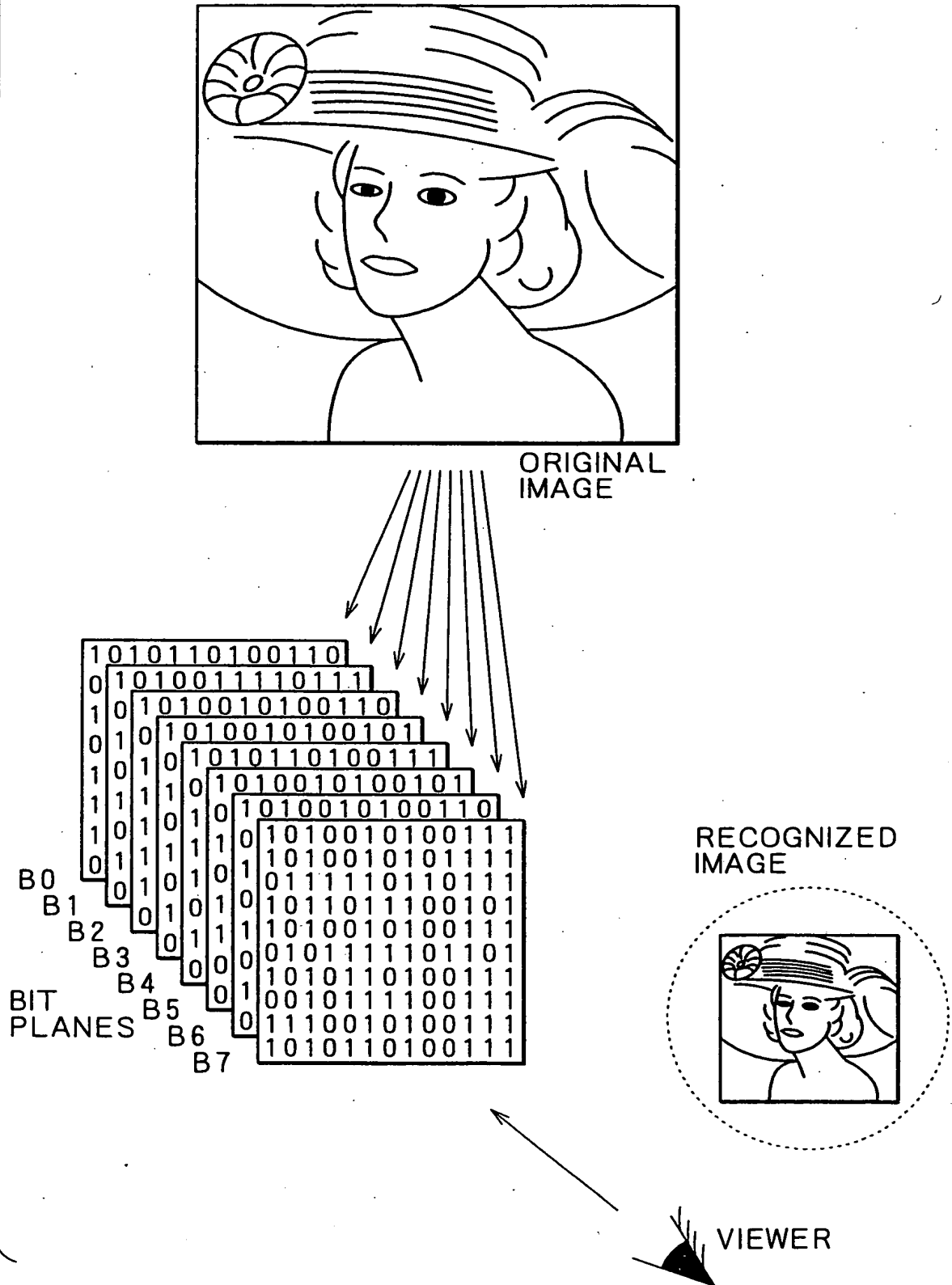


FIG. 2

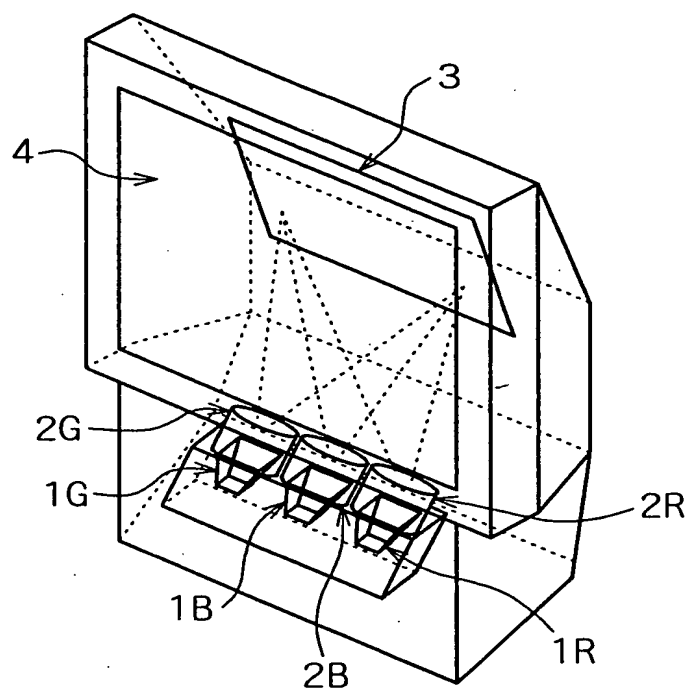


FIG. 3

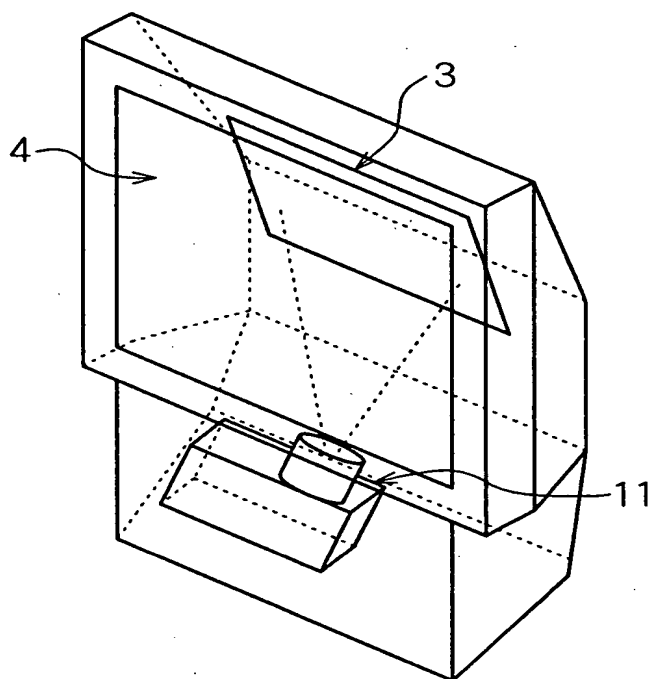


FIG. 4

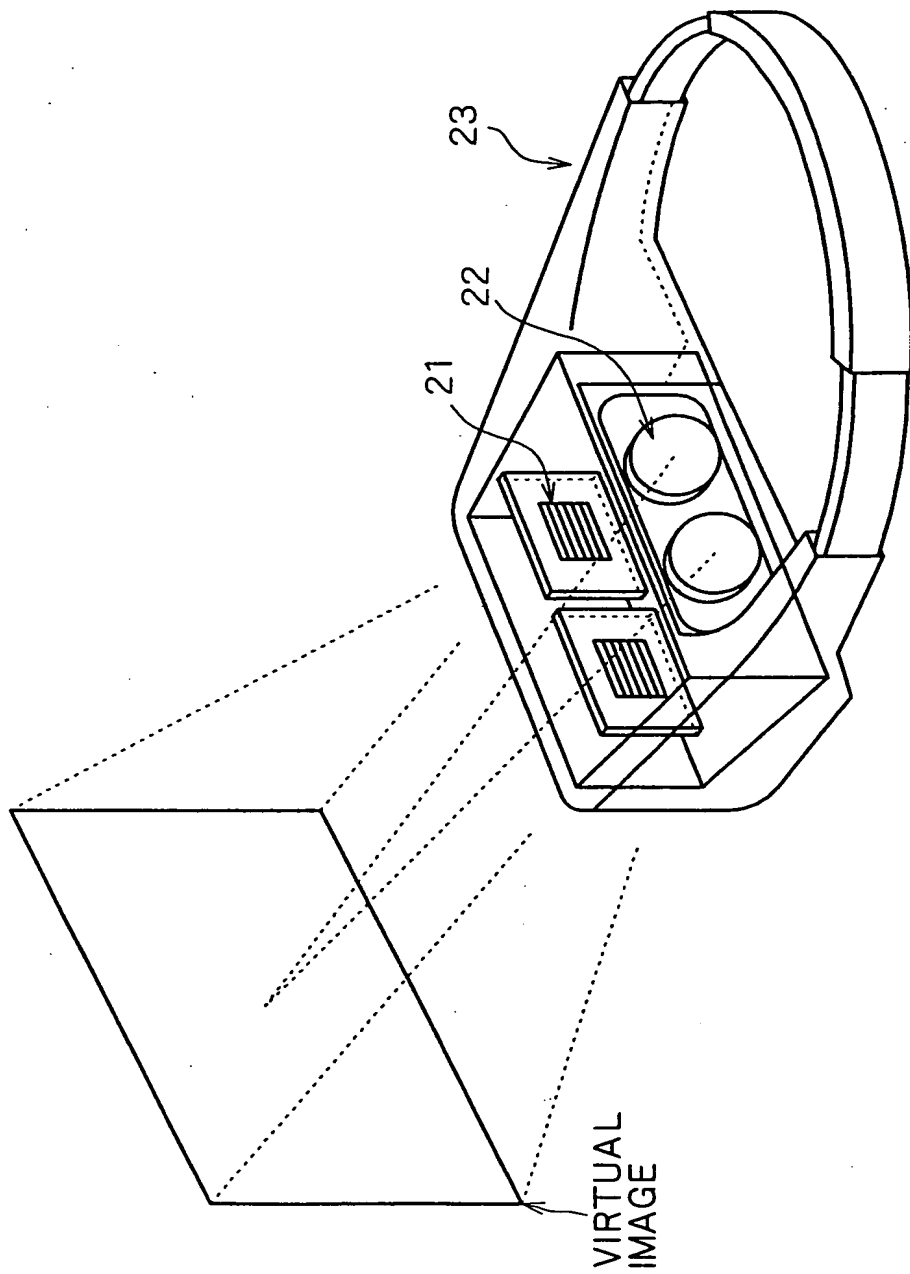


FIG. 5

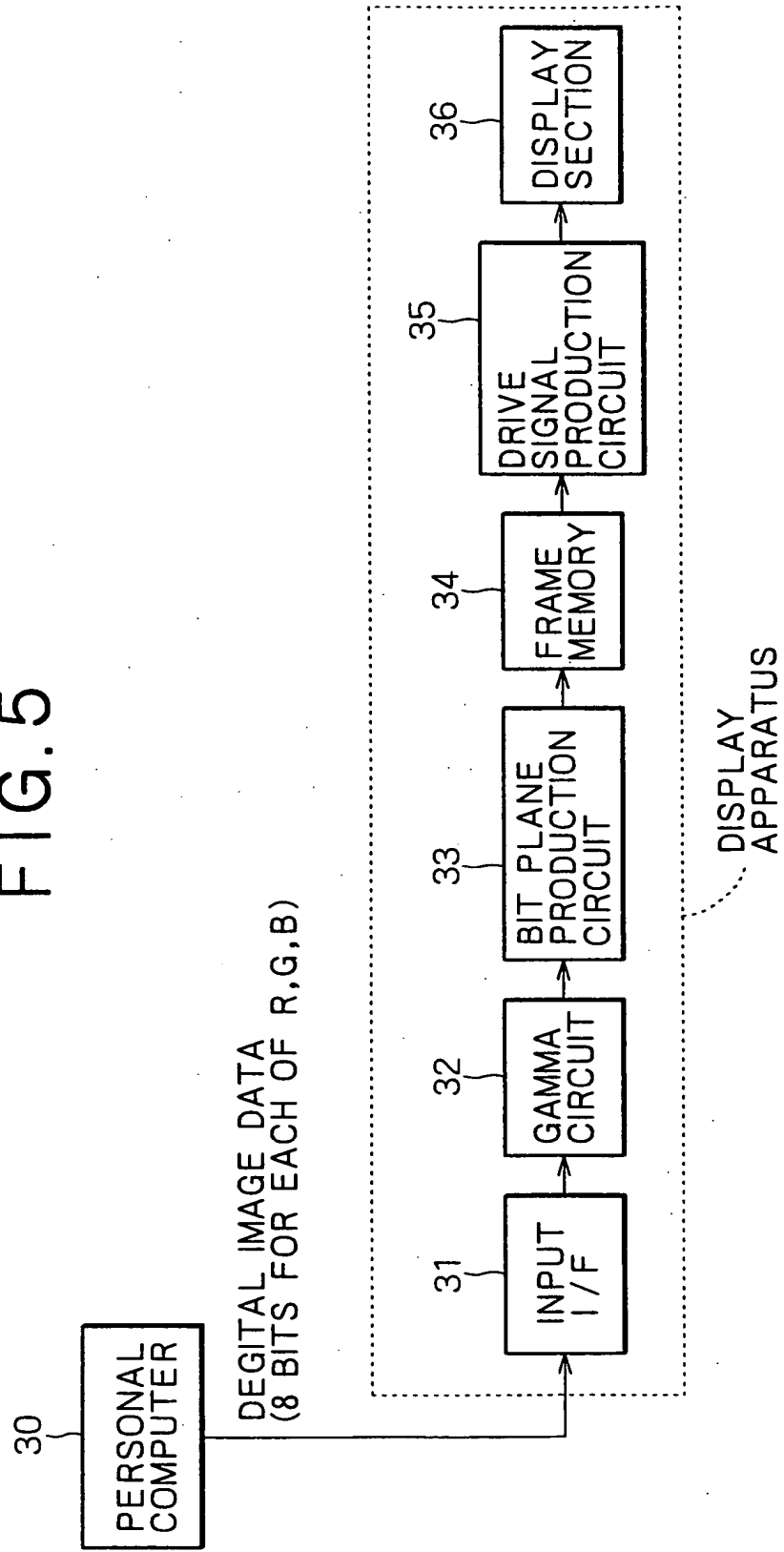


FIG. 6

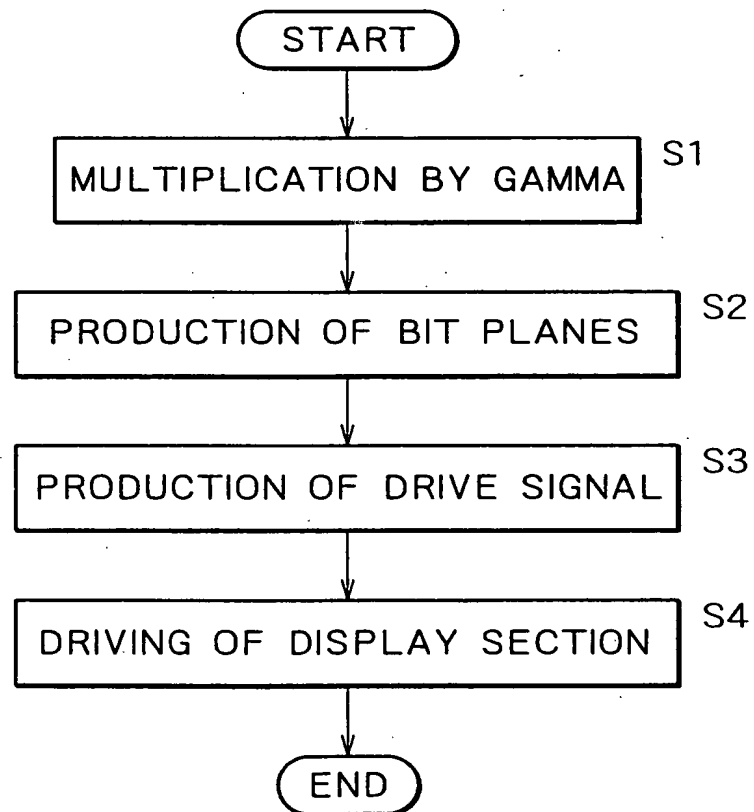


FIG. 7A

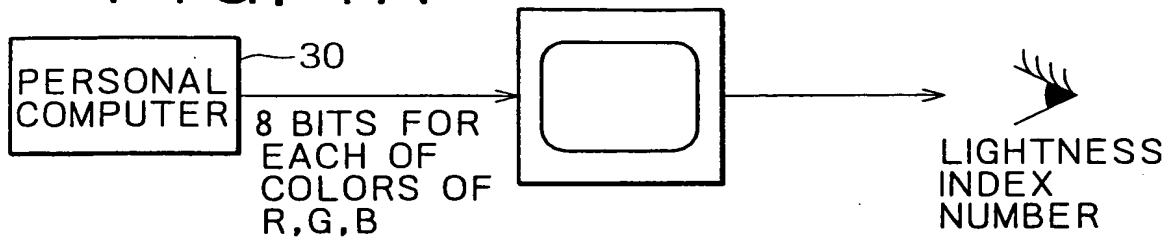


FIG. 7B



FIG. 7C

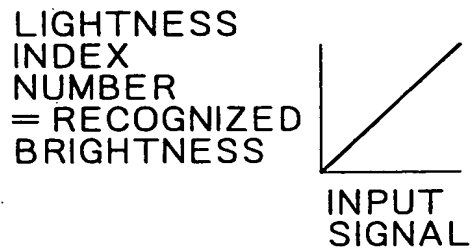


FIG. 7D

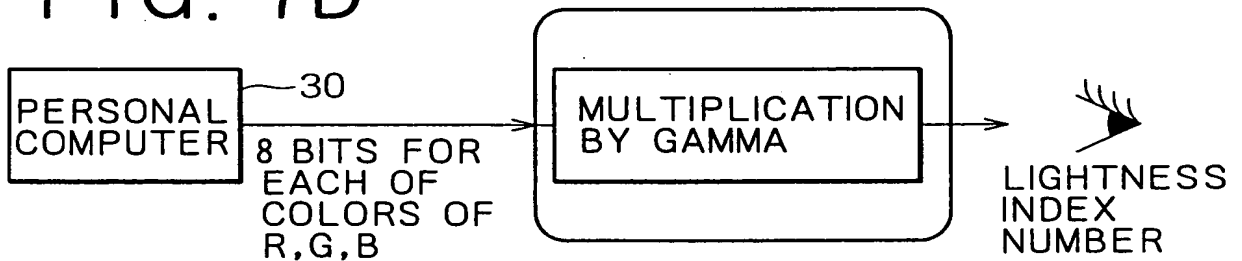


FIG. 7F

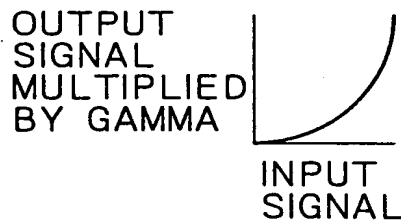


FIG. 7E

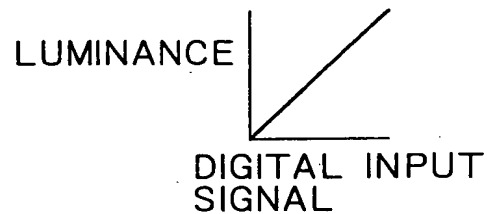


FIG. 7G

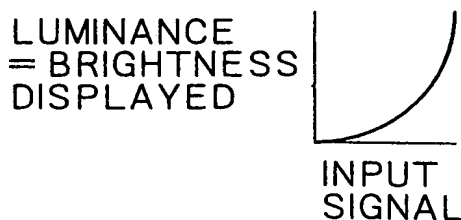


FIG. 7H

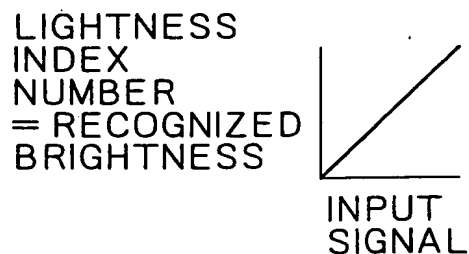


FIG. 8A

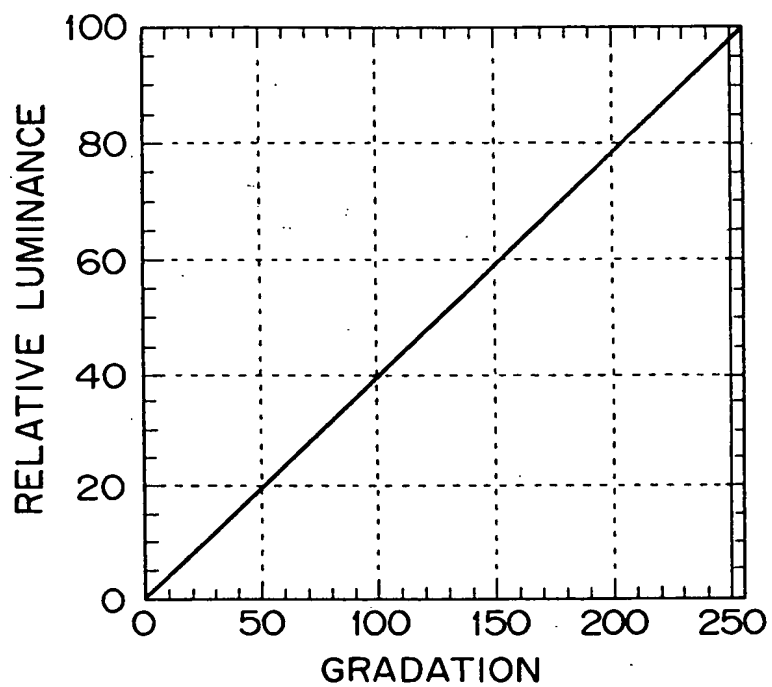


FIG. 8B

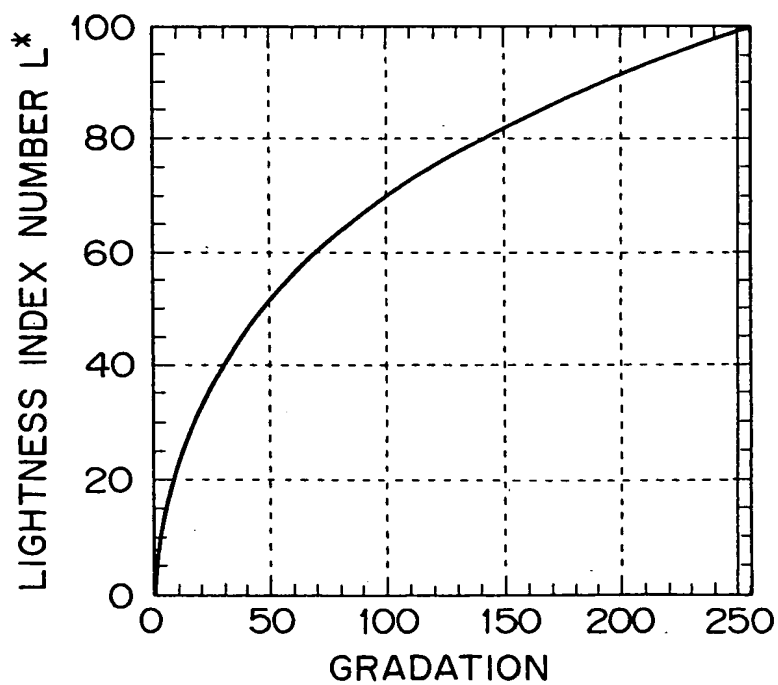


FIG. 9A

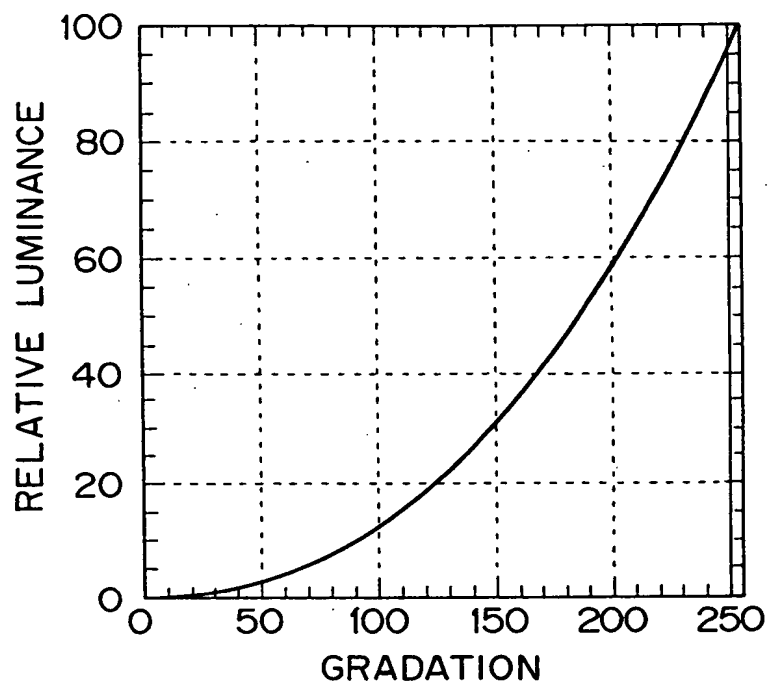


FIG. 9B

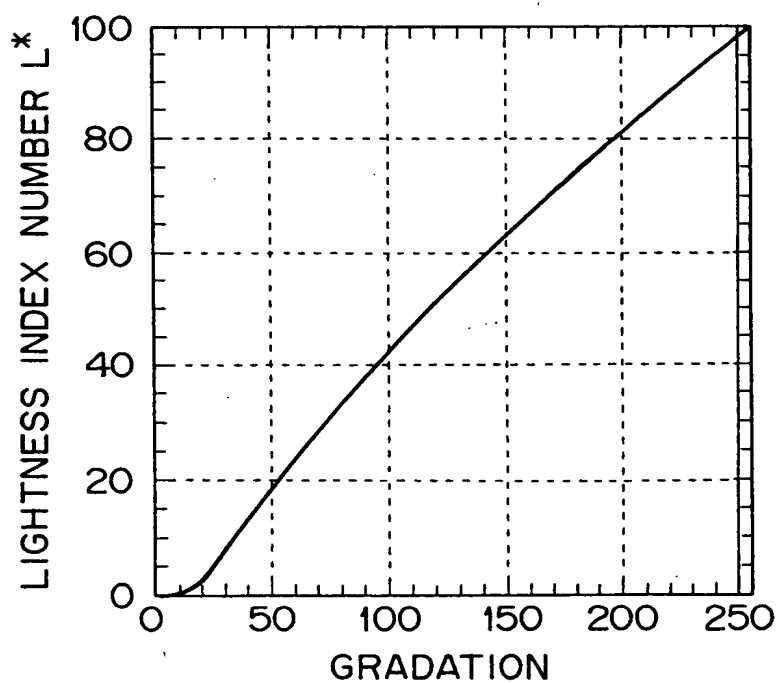


FIG. 10A

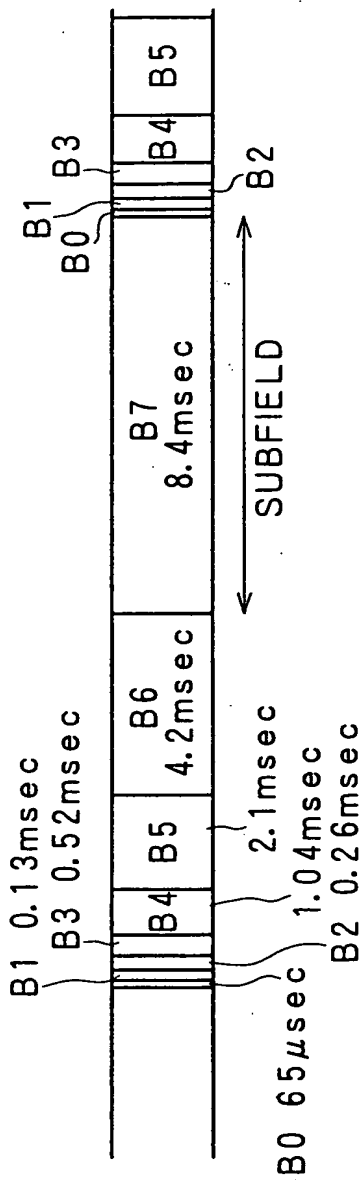
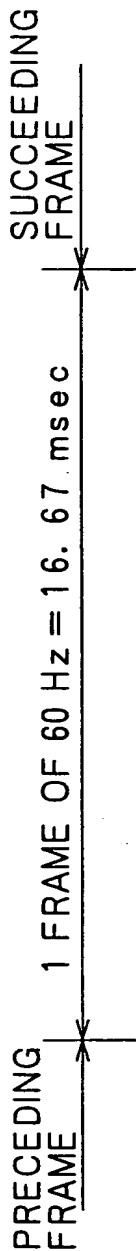


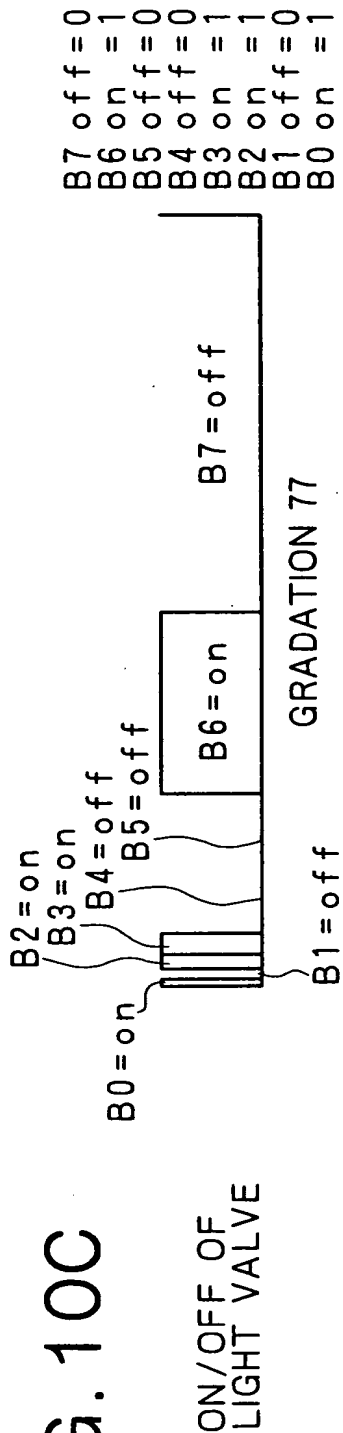
FIG. 10B



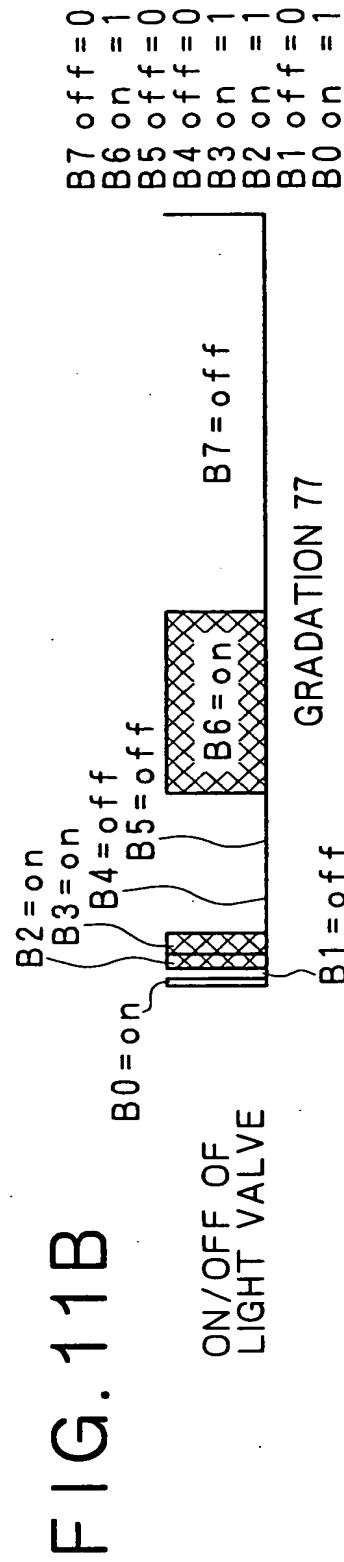
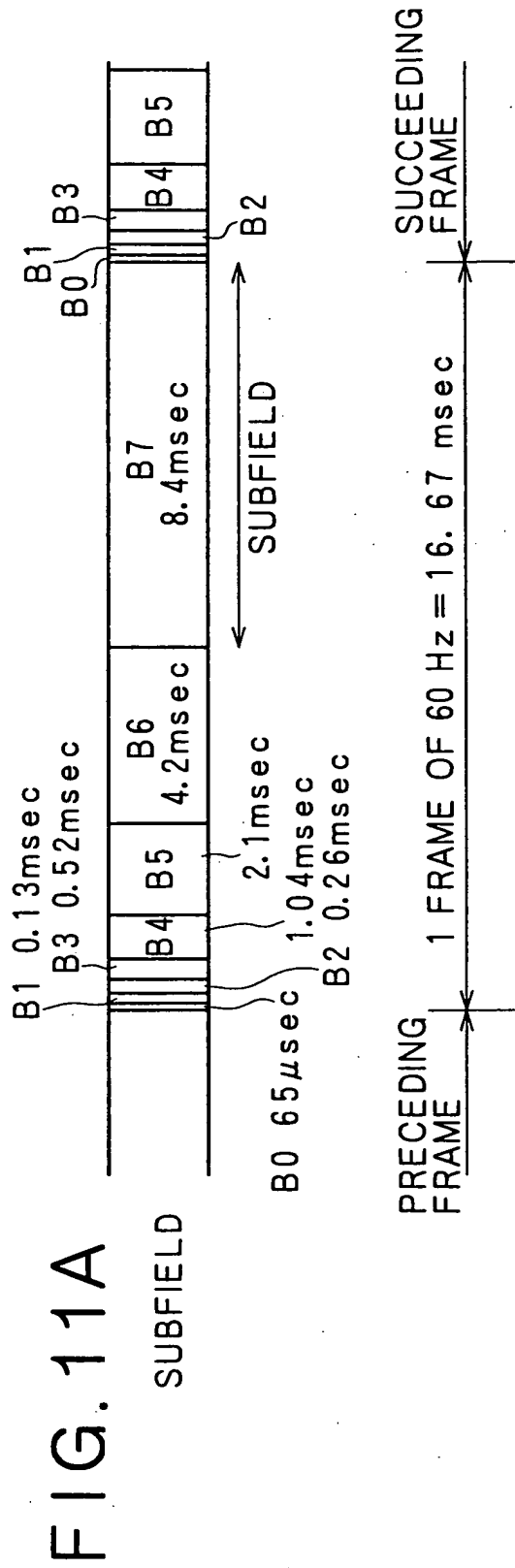
LUMINANCE OF LIGHT SOURCE

LUMINANCE OF LIGHT SOURCE = FIXED

FIG. 10C



B7 off = 0
B6 on = 1
B5 off = 0
B4 off = 0
B3 on = 1
B2 on = 1
B1 off = 0
B0 on = 1



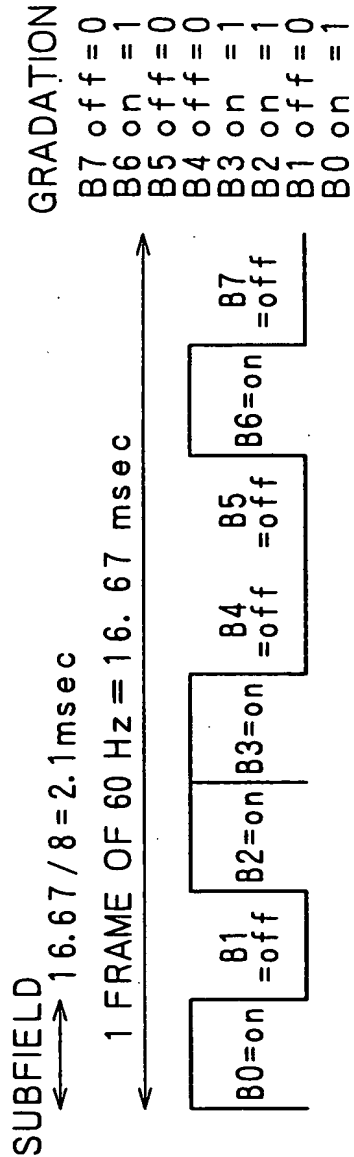
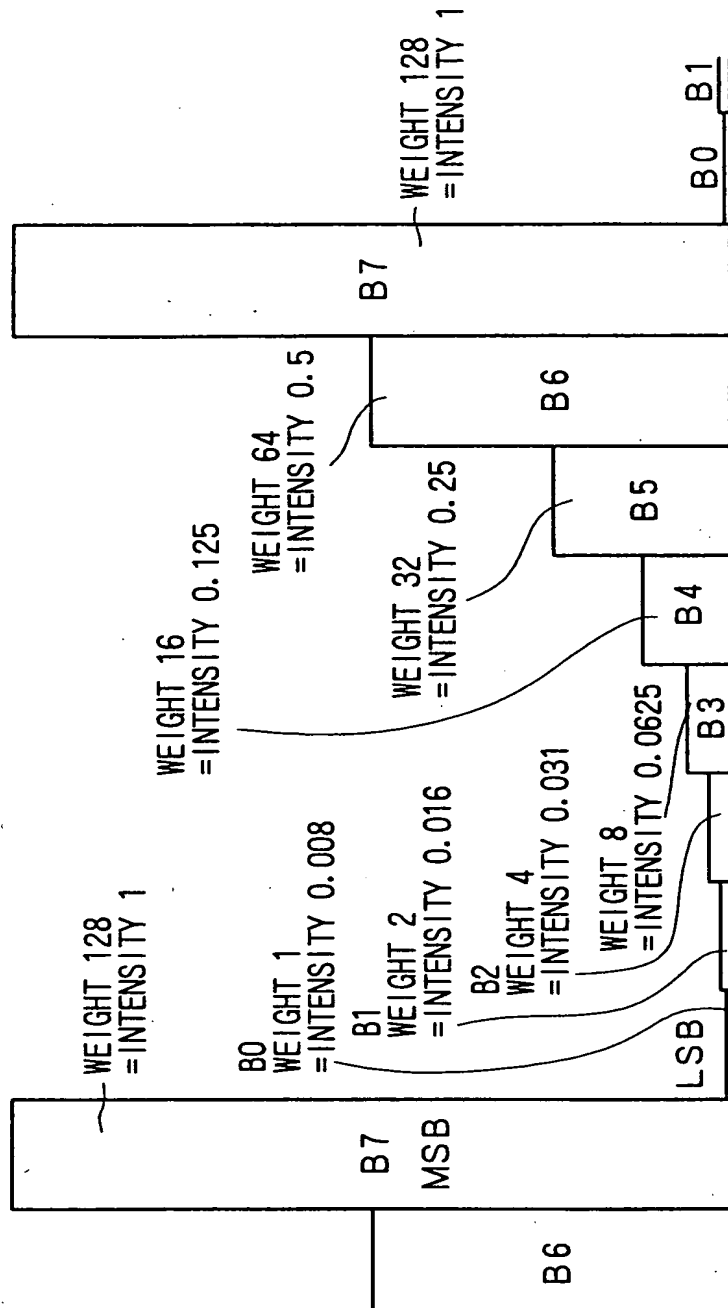


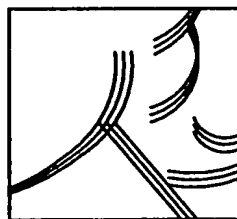
FIG. 12B

ON/OFF OF LIGHT
SOURCE/LIGHT VALVE

FIG. 13A

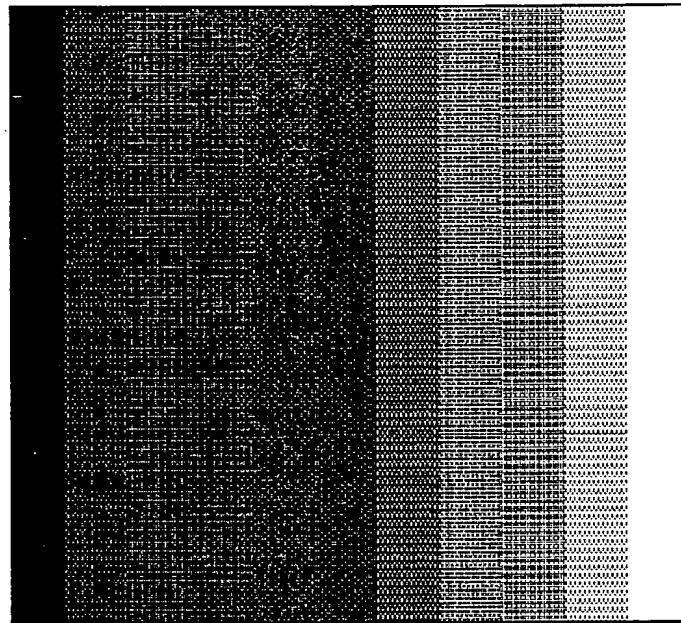


FIG. 13B



ENLARGED

FIG. 14A



GRADATION 0

GRADATION 255

256 GRADATIONS \times 2 PIXELS/
GRADATION = 512 PIXELS

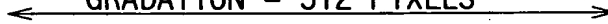
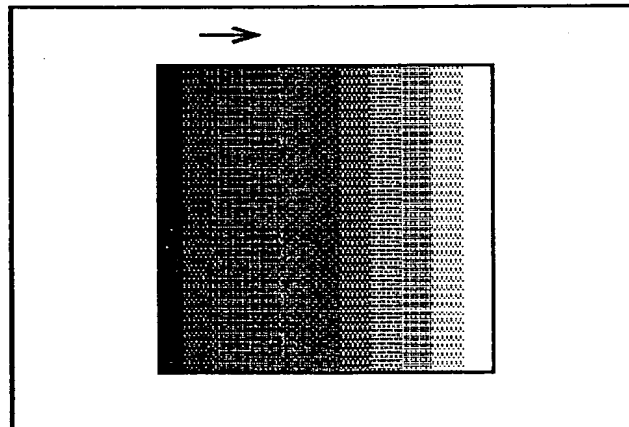


FIG. 14B

10 PIXELS/FRAME = 600 PIXELS/
1 SECOND
WHEN 1 FRAME = 60 Hz



640/480 DISPLAY HORIZONTALLY 640 PIXELS \rightarrow 1.1 SECONDS
 800/600 DISPLAY HORIZONTALLY 800 PIXELS \rightarrow 1.3 SECONDS
 1024/768 DISPLAY HORIZONTALLY 1024 PIXELS \rightarrow 1.7 SECONDS
 1280/1024 DISPLAY HORIZONTALLY 1280 PIXELS \rightarrow 2.1 SECONDS
 1600/1200 DISPLAY HORIZONTALLY 1600 PIXELS \rightarrow 2.6 SECONDS

FIG. 15

(A) (B) (C) (D)

8-BIT LINEAR	72.2	8-BIT INTEGER	B0 B1 B2 B3 B4 B5 B6 B7							
0	0.0	0	0	0	0	0	0	0	0	0
1	0.0	0	0	0	0	0	0	0	0	0
2	0.0	0	0	0	0	0	0	0	0	0
3	0.0	0	0	0	0	0	0	0	0	0
4	0.0	0	0	0	0	0	0	0	0	0
5	0.0	0	0	0	0	0	0	0	0	0
6	0.1	0	0	0	0	0	0	0	0	0
7	0.1	0	0	0	0	0	0	0	0	0
8	0.1	0	0	0	0	0	0	0	0	0
9	0.2	0	0	0	0	0	0	0	0	0
10	0.2	0	0	0	0	0	0	0	0	0
11	0.3	0	0	0	0	0	0	0	0	0
12	0.3	0	0	0	0	0	0	0	0	0
13	0.4	0	0	0	0	0	0	0	0	0
14	0.4	0	0	0	0	0	0	0	0	0
15	0.5	1	1	0	0	0	0	0	0	0
16	0.6	1	1	0	0	0	0	0	0	0
17	0.7	1	1	0	0	0	0	0	0	0
18	0.7	1	1	0	0	0	0	0	0	0
19	0.8	1	1	0	0	0	0	0	0	0
20	0.9	1	1	0	0	0	0	0	0	0
21	1.0	1	1	0	0	0	0	0	0	0
22	1.2	1	1	0	0	0	0	0	0	0
23	1.3	1	1	0	0	0	0	0	0	0
24	1.4	1	1	0	0	0	0	0	0	0
25	1.5	2	0	1	0	0	0	0	0	0
26	1.7	2	0	1	0	0	0	0	0	0
27	1.8	2	0	1	0	0	0	0	0	0
28	2.0	2	0	1	0	0	0	0	0	0
29	2.1	2	0	1	0	0	0	0	0	0
30	2.3	2	0	1	0	0	0	0	0	0

(OMITTED)

241	225.2	225	1	0	0	0	0	1	1	1
242	227.3	227	1	1	0	0	0	1	1	1
243	229.3	229	1	0	1	0	0	1	1	1
244	231.4	231	1	1	1	0	0	1	1	1
245	233.5	234	0	1	0	1	0	1	1	1
246	235.6	236	0	0	1	1	0	1	1	1
247	237.7	238	0	1	1	1	0	1	1	1
248	239.9	240	0	0	0	0	1	1	1	1
249	242.0	242	0	1	0	0	1	1	1	1
250	244.1	244	0	0	1	0	1	1	1	1
251	246.3	246	0	1	1	0	1	1	1	1
252	248.4	248	0	0	0	1	1	1	1	1
253	250.6	251	1	1	0	1	1	1	1	1
254	252.8	253	1	0	1	1	1	1	1	1
255	255.0	255	1	1	1	1	1	1	1	1

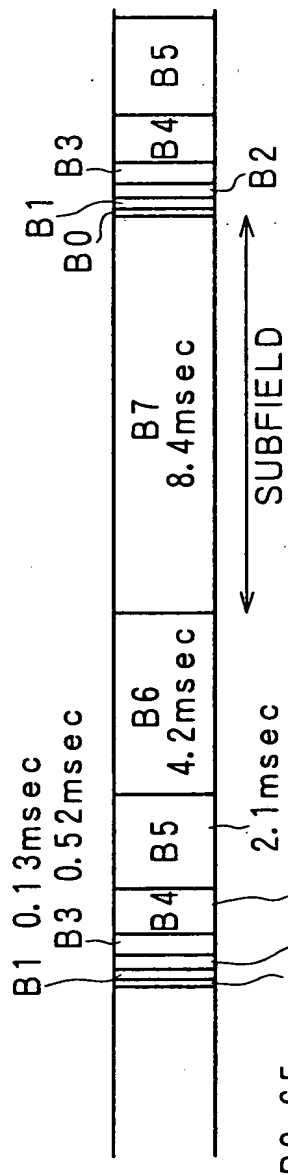


FIG. 16A
SUBFIELD

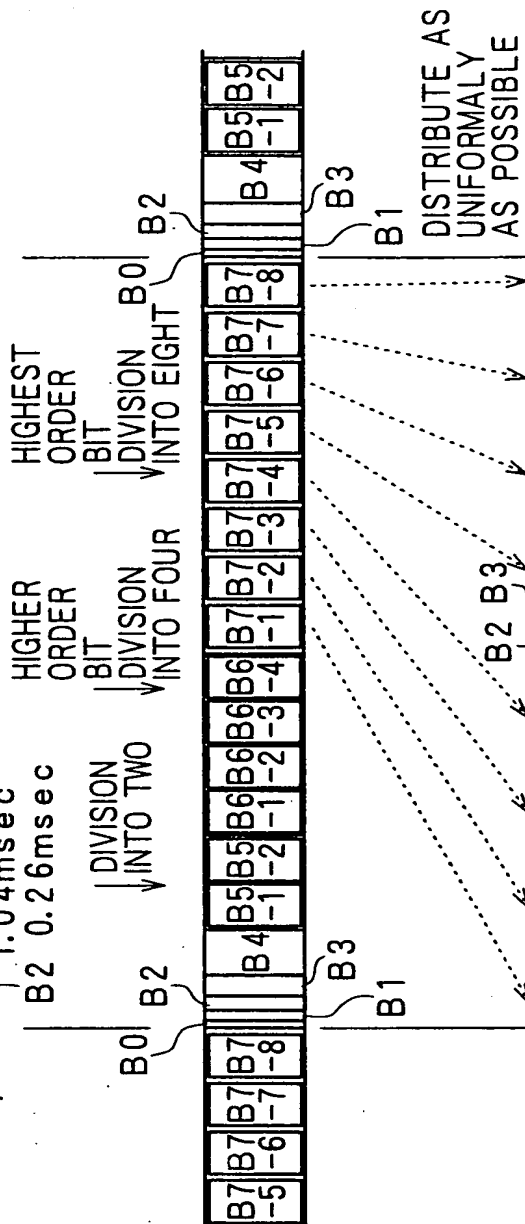


FIG. 16B
DIVISION

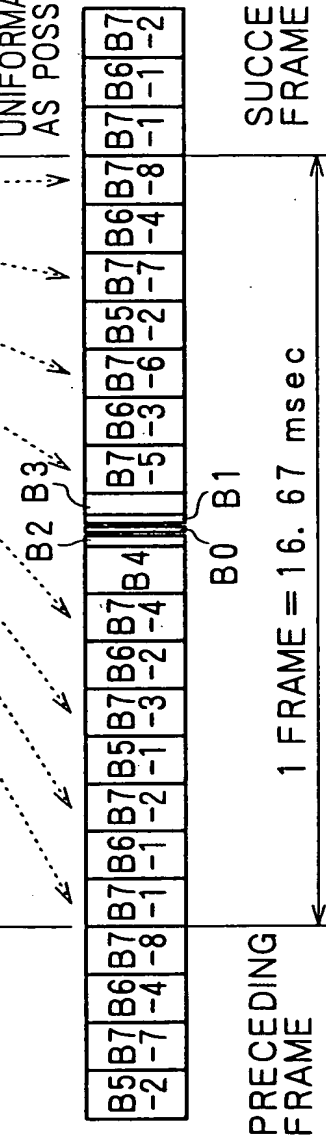


FIG. 16C

FIG. 17

[illegible]

SUBFIELD	B7-1 B6-1 B7-2 B5-1 B7-3 B6-2 B7-4 B4 B2 B0 B1 B3 B7-5 B6-3 B7-6 B5-2 B7-7 B6-4 B7-8
TIME	1040 1040 1040 1040 1040 1040 1040 260 65 130 520 1040 1040 1040 1040 1040 1040 1040
ACCUMULATED	1040 2080 3120 4160 5200 6240 7280 8320 8580 8645 8775 9295 10335 11375 12415 13445 14495 15535 16575
Movement Pixel Number	1 2 3 3 4 4 4 5 5 5 5 6 6 7 7 8 9 9 10
NORMALIZED LIGHT AMOUNT	
1	
2	0 0
3	0 0 0
4	0 0 0 0
5	0 0 0 0 0
6	0 0 0 0 0 0
7	0 0 0 0 0 0 0
8	0 0 0 0 0 0 0 0
9	0 0 0 0 0 0 0 0 0
10	0 0 0 0 0 0 0 0 0 0
	(OMITTED)
270	0 0 0 1 0 0 0 1 1 0 0 1 0 0 0 1 0 0 0
271	0 0 0 1 0 0 0 1 1 0 0 1 0 0 0 1 0 0 0
272	0 0 0 1 0 0 0 1 1 0 0 1 0 0 0 1 0 0 0
273	0 0 0 1 0 0 0 1 1 0 0 1 0 0 0 1 0 0 0
274	0 1 0 1 0 0 0 1 1 0 1 1 0 0 0 1 0 0 0
	(OMITTED)
514	1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1
515	1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1
516	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
517	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
518	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
519	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
520	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
521	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
522	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

FIG. 19A

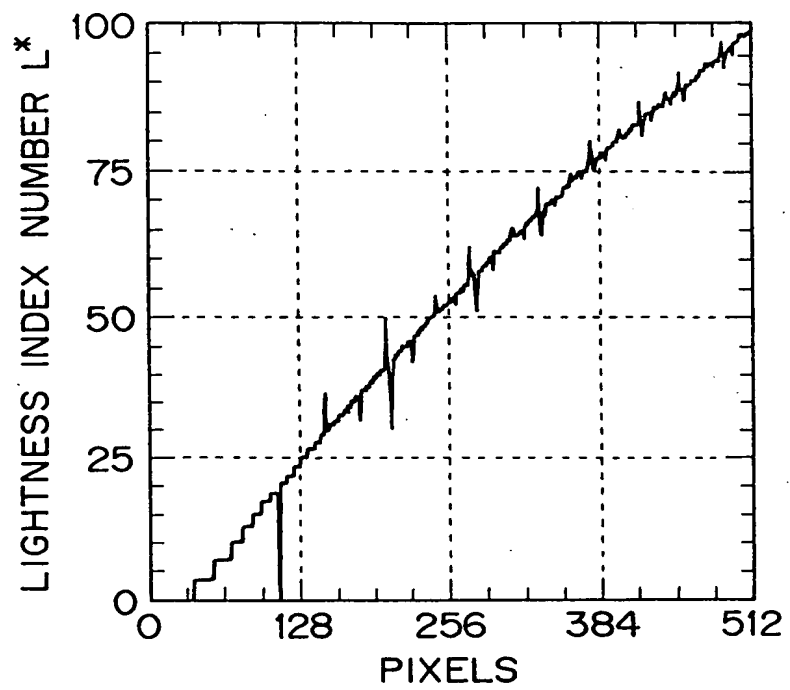


FIG. 19B

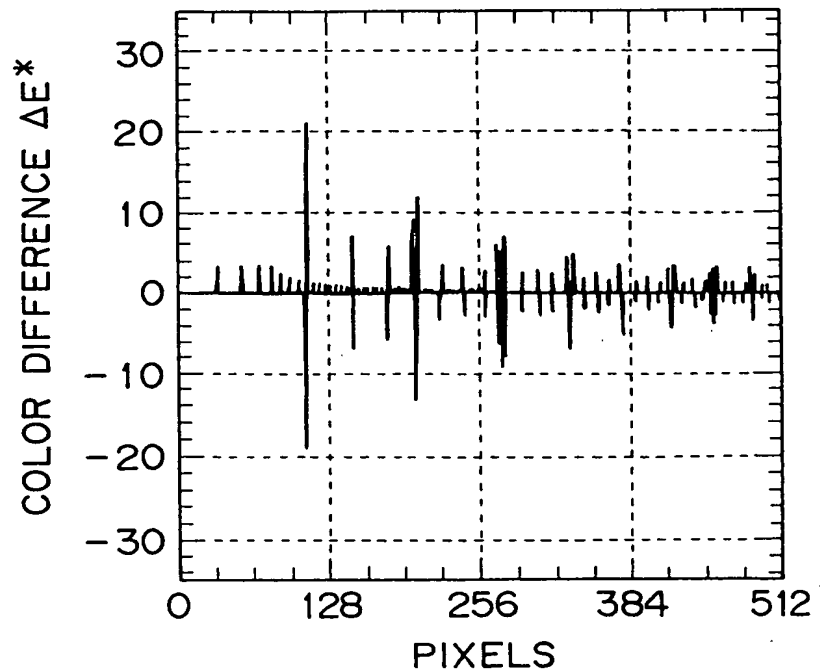


FIG. 20A

BIT PLANE		DIVISION NUMBER		WEIGHT AFTER DIVISION		μsec	
MSB	B7	8	128	16	8320	1040	1040
	B6	4	64	16	4160	1040	1040
	B5	2	32	16	2080	1040	1040
	B4	1	16	16	1040	1040	1040
	B3	1	8	8	520	520	520
	B2	1	4	4	260	260	260
	B1	1	2	2	130	130	130
LSB	B0	1	1	1	65	65	65
Blank					92	16667	16667
TOTAL		19					

FIG. 20B

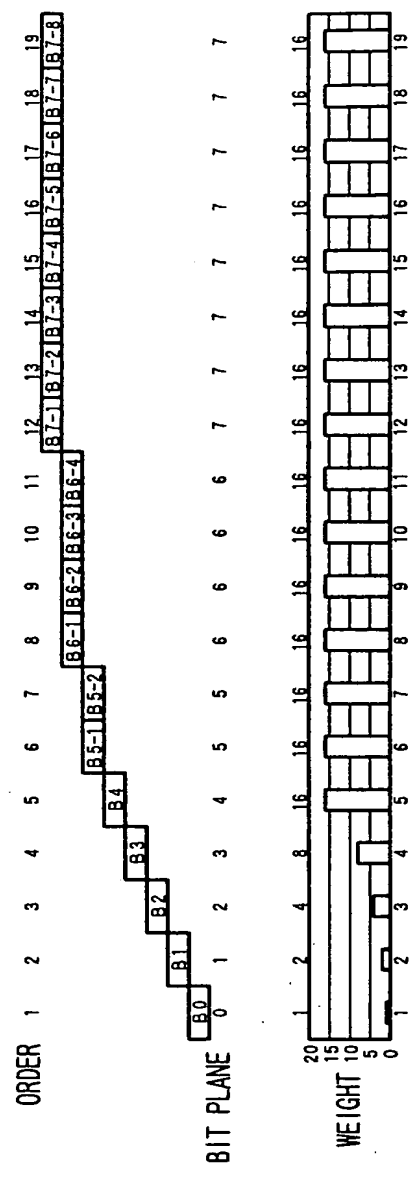


FIG. 21A

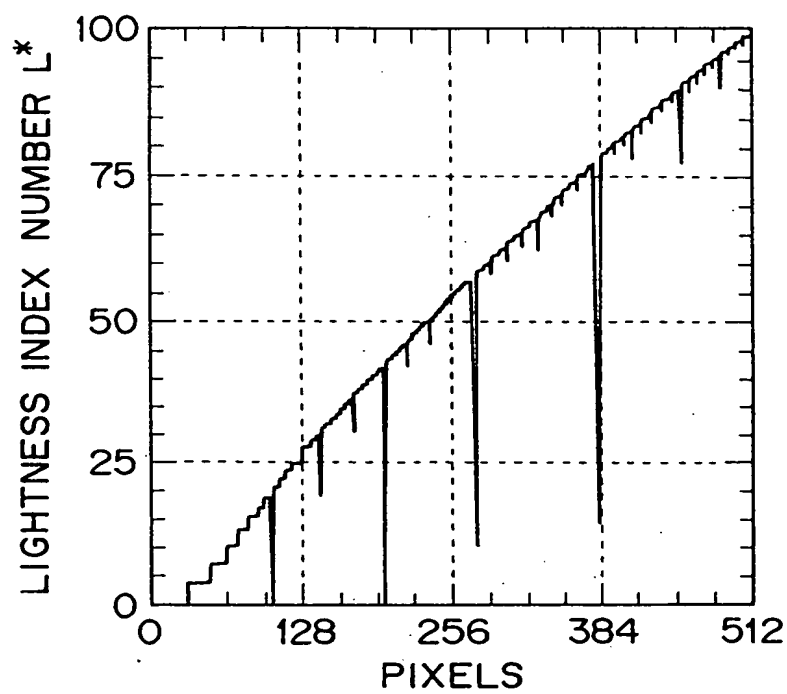


FIG. 21B

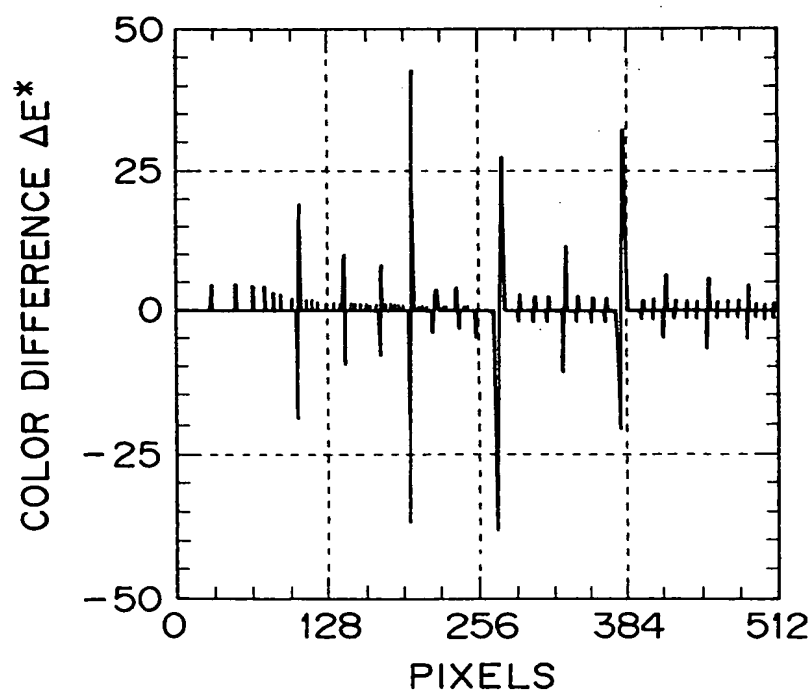


FIG. 22B

[illegible]

FIG. 23A

FIG. 23B

SUBFIELD NUMBER OF COLUMNS OF HORIZONTAL PIXELS	B7-1 B6-1 B7-2 B5-1 B7-3 B6-2 B7-4 B4 B2 B0 B1 B3 B7-5 B6-3 B7-6 B5-2 B7-7 B6-4 B7-8													NORMALIZED LIGHT AMOUNT ×100	LIGHTNESS Lab	COLOR DIFFERENCE ΔE			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00	0.00
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.00</th> <th>0.00</th>	0.00	0.00	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 <th>0.0000</th> <th>0.00</th>	0.0000	0.00	
(OMMITTED)																			
270	0	0	0	1	0	0	1	1	0	1	1	0	0	1	0	0	62.0 <td>0.2431</td> <td>24.31</td>	0.2431	24.31
271	0	0	0	1	0	0	1	1	1	1	1	0	0	1	0	0	63.0 <td>0.2471</td> <td>24.71</td>	0.2471	24.71
272	0	0	0	1	0	0	1	1	1	1	1	0	0	1	0	0	63.0 <td>0.2471</td> <td>24.71</td>	0.2471	24.71
273	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	64.0 <td>0.2510</td> <td>25.10</td>	0.2510	25.10
274	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	64.0 <td>0.2510</td> <td>25.10</td>	0.2510	25.10
(OMMITTED)																			
502	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	244.0	0.9569	95.69
503	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	246.0	0.9647	96.47
504	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	246.0	0.9647	96.47
505	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	248.0	0.9725	97.25
506	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	248.0	0.9725	97.25
507	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	251.0	0.9843	98.43
508	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	251.0	0.9843	98.43
509	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	253.0	0.9922	99.22
510	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	253.0	0.9922	99.22
511	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	255.0	1.0000	100.00
512	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	255.0	1.0000	100.00

FIG. 24A

FIG. 24B

MOVEMENT PIXEL NUMBER	SUBFIELD B7-1 B6-1 B7-2 B5-1 B7-3 B6-2 B7-4 B4 B3 B2 B0 B1 B3 B7-5 B6-3 B7-6 B5-2 B7-7 B6-4 B7-8	NUMBER OF COLUMNS OF HORIZONTAL PIXELS	LIGHTNESS										NORMALIZED LIGHT AMOUNT		LIGHTNESS		COLOR DIFFERENCE	
			x100										Lab		ΔE			
1	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
2	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
3	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
4	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
5	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
6	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
7	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
8	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
10	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00	0.00
(OMMITTED)																		
270	0	0	0	0	0	0	0	0	0	0	0	0	62.0	0.2431	24.31	56.40	1.19	
271	0	0	0	0	0	0	0	0	0	0	0	0	60.0	0.2353	23.53	55.61	-0.79	
272	0	0	0	0	0	0	0	0	0	0	0	0	61.0	0.2392	23.92	56.01	0.40	
273	0	0	0	0	0	0	0	0	0	0	0	0	61.0	0.2392	23.92	56.01	0.00	
274	0	0	0	0	0	0	0	0	0	0	0	0	76.0	0.2980	29.80	61.48	5.48	
(OMMITTED)																		
512	1	1	1	1	0	1	0	1	1	0	0	0	249.0	0.9765	97.65	99.08	0.15	
513	1	1	1	1	0	1	1	1	1	1	1	1	251.0	0.9843	98.43	99.39	0.31	
514	1	1	1	1	1	1	1	1	1	1	1	1	223.0	0.8742	87.45	94.93	-4.46	
515	1	1	1	1	1	1	0	1	1	1	1	1	189.0	0.7412	74.12	88.98	-5.95	
516	1	1	1	1	1	1	0	1	1	1	1	1	157.0	0.6157	61.57	82.68	-6.29	
517	1	1	1	1	1	1	1	1	1	1	1	1	127.0	0.4980	49.80	75.95	-6.73	
518	1	1	1	1	1	1	1	1	1	1	1	1	122.0	0.4784	47.84	74.73	-1.22	
519	1	1	1	1	1	1	1	1	1	1	1	1	112.0	0.4392	43.92	72.18	-2.55	
520	1	1	1	1	1	1	1	1	1	1	1	1	80.0	0.3137	31.37	62.82	-9.36	
521	1	1	1	1	1	1	1	1	1	1	1	1	48.0	0.1882	18.82	50.48	-12.34	
522	1	1	1	1	1	1	1	1	1	1	1	1	16.0	0.0627	6.27	30.09	-20.39	

FIG. 25A

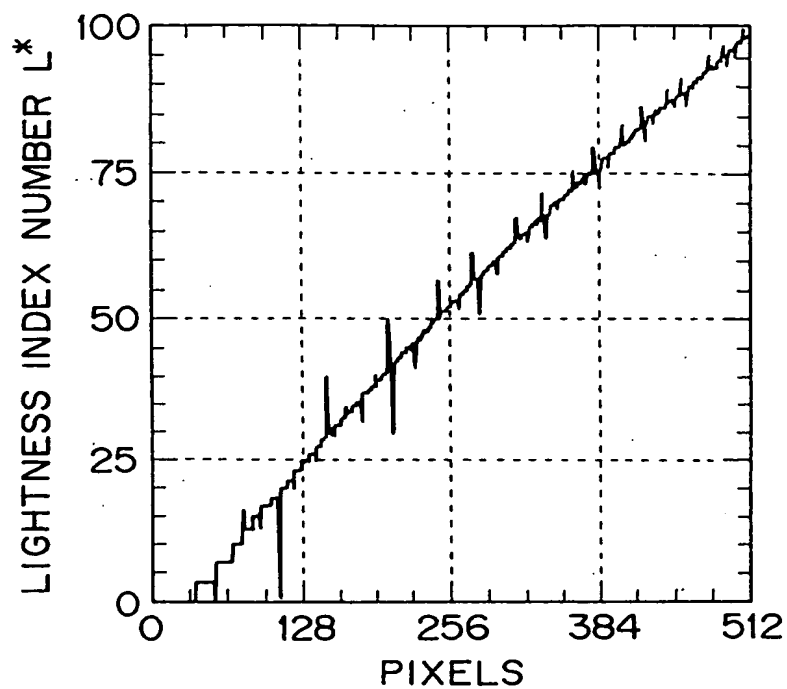


FIG. 25B

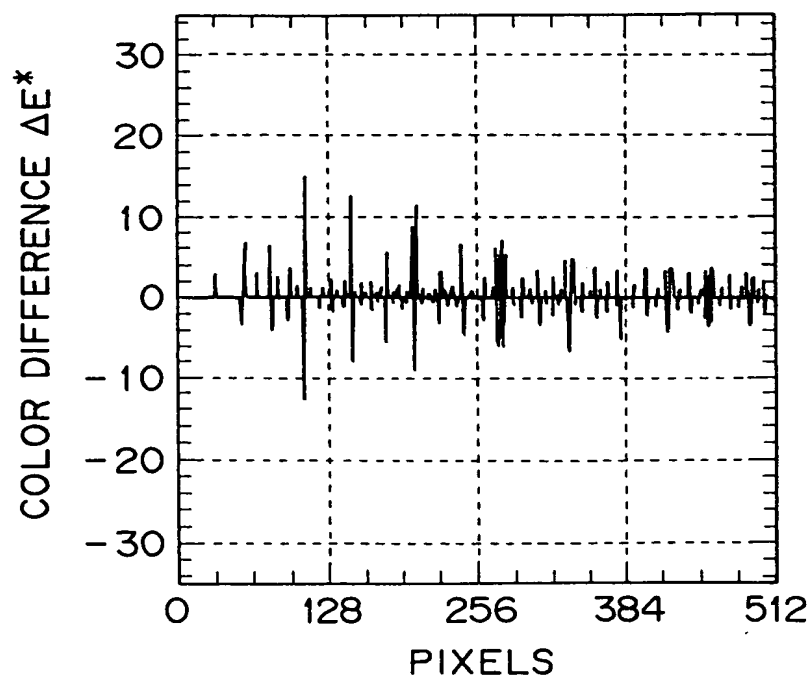


FIG. 26A

FIG. 26B

DIVISION NUMBER	WEIGHT AFTER DIVISION	BIT PLANE		WEIGHT	DIVISION NUMBER	WEIGHT AFTER DIVISION
		MSB	LSB			
	16	B7	B0	128	8	16
	16	B6		64	4	16
	16	B5		32	2	16
	16	B4		16	1	16
	8	B3		8	1	8
	4	B2		4	1	4
	2	B1		2	1	2
	1	B0		1	1	1
Blank						
TOTAL					19	

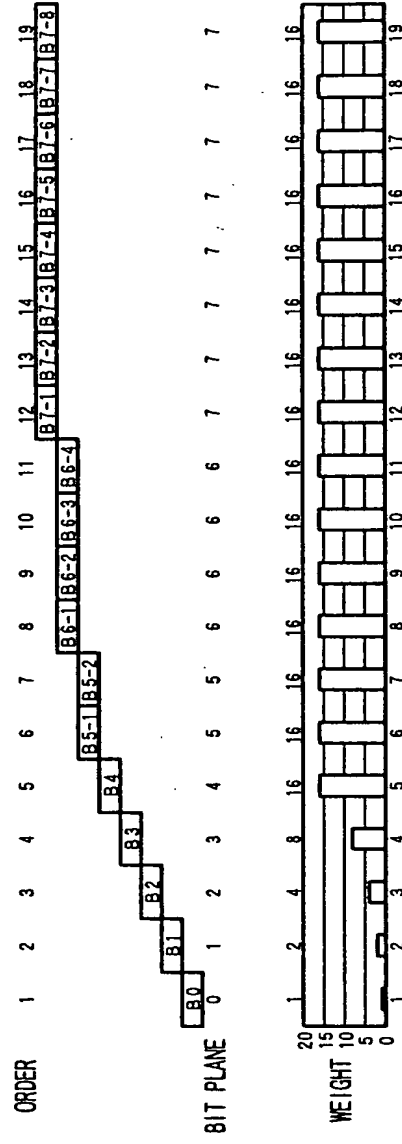


FIG. 27A

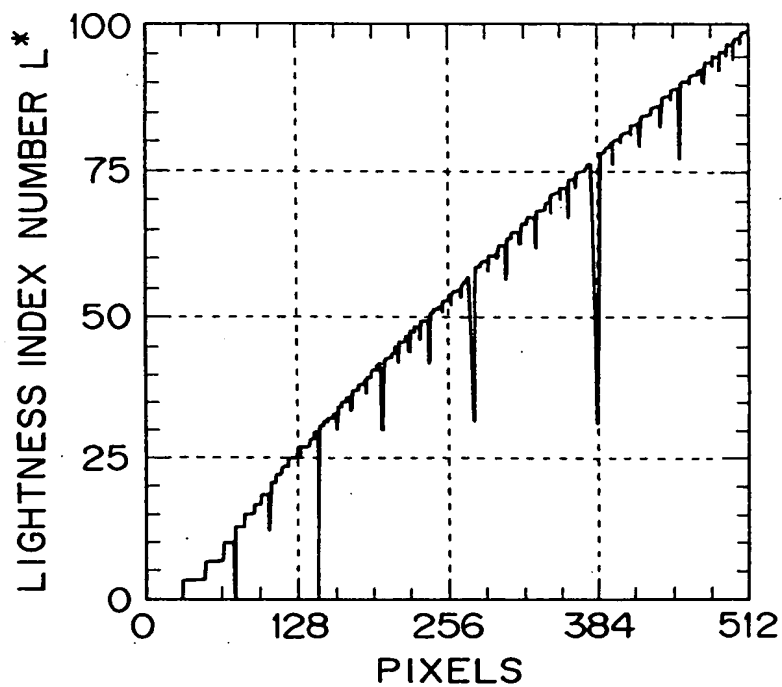


FIG. 27B

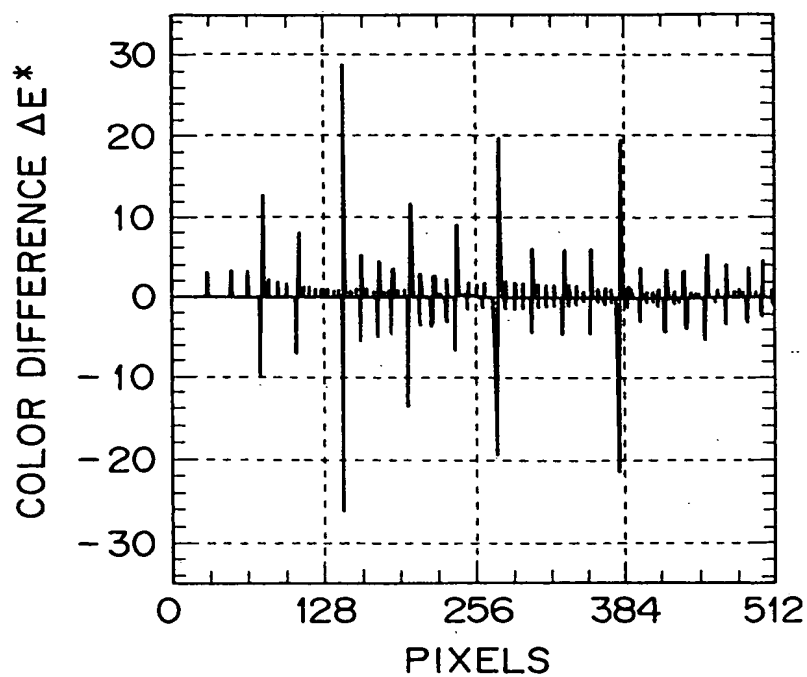


FIG. 28B

BIT PLANE	DIVISION NUMBER		WEIGHT AFTER DIVISION	μ sec
	BEFORE	AFTER		
MSB	B7	4	32	8320
	B6	4	16	4160
	B5	3	10.67	2080
	B4	3	5.33	1040
	B3	2	4	520
	B2	2	2	260
	B1	1	1	130
LSB	B0	Blank	1	65
TOTAL				16667

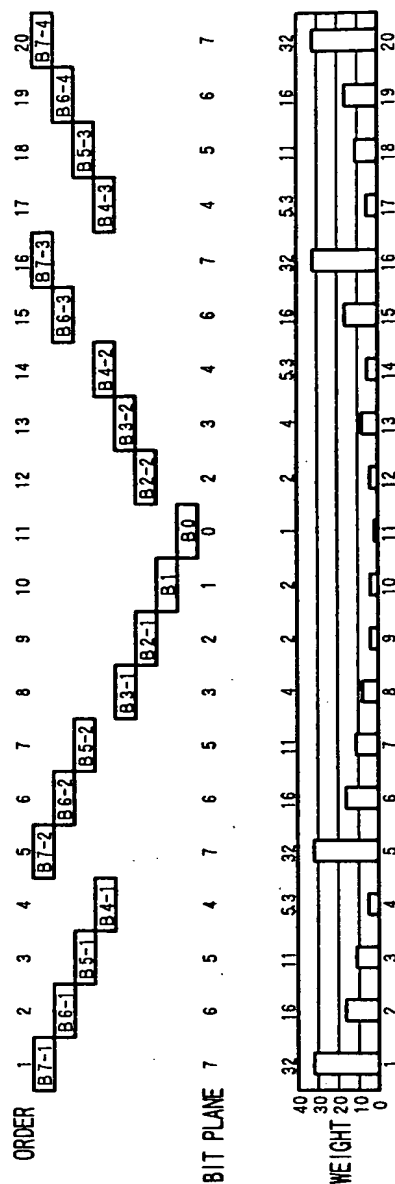


FIG. 29A

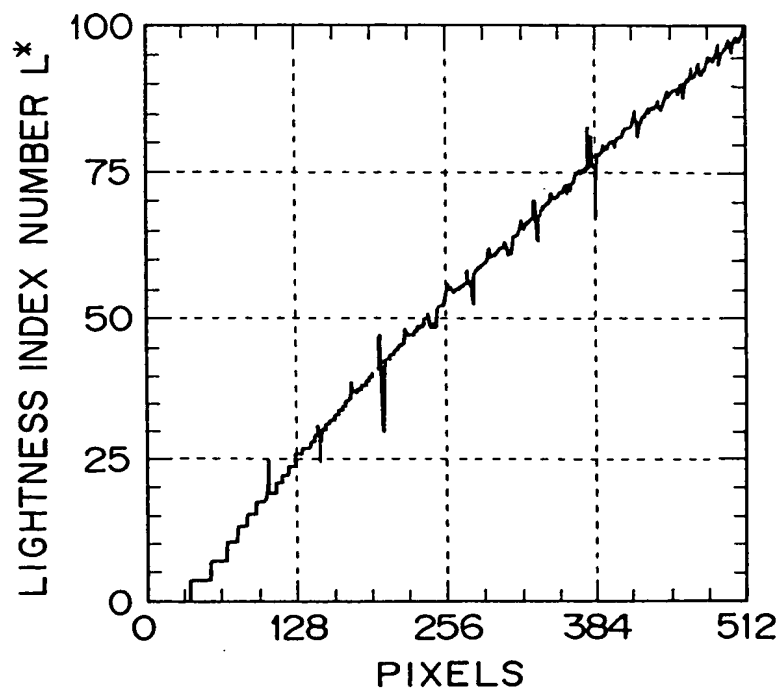


FIG. 29B

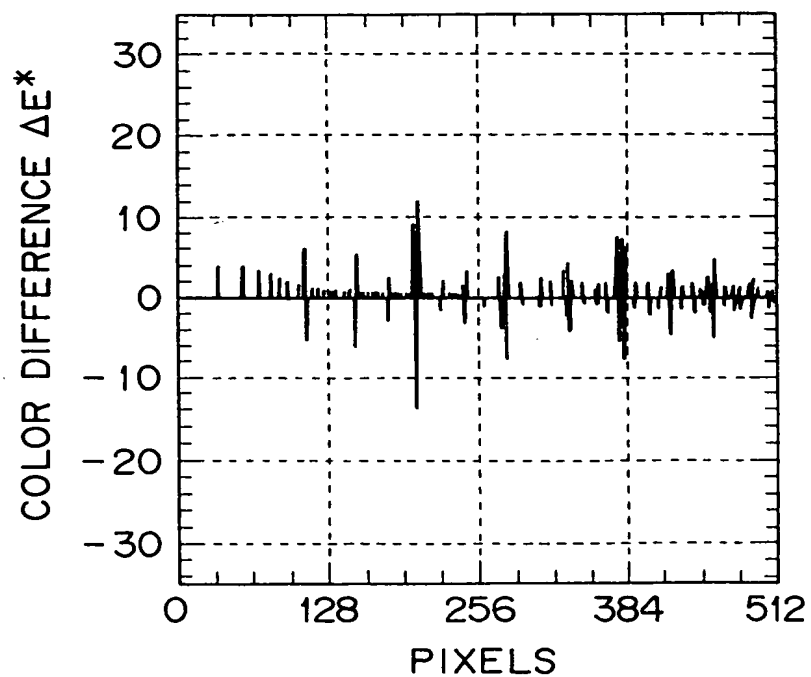


FIG. 30A

BIT PLANE	WEIGHT	DIVISION	
		NUMBER	WEIGHT AFTER DIVISION
MSB	B7	128	4
	B6	64	3
	B5	32	3
	B4	16	3
	B3	8	2
	B2	4	2
	B1	2	2
	B0	1	1
LSB	Blank		
TOTAL		20	

DIVISION		μsec	
BIT PLANE	WEIGHT	NUMBER	WEIGHT AFTER DIVISION
B7	128	8320	2080
B6	64	4160	1387
B5	32	2080	693
B4	16	1040	347
B3	8	520	260
B2	4	260	130
B1	2	130	65
B0	1	65	65
Blank		92	16667

FIG. 30B

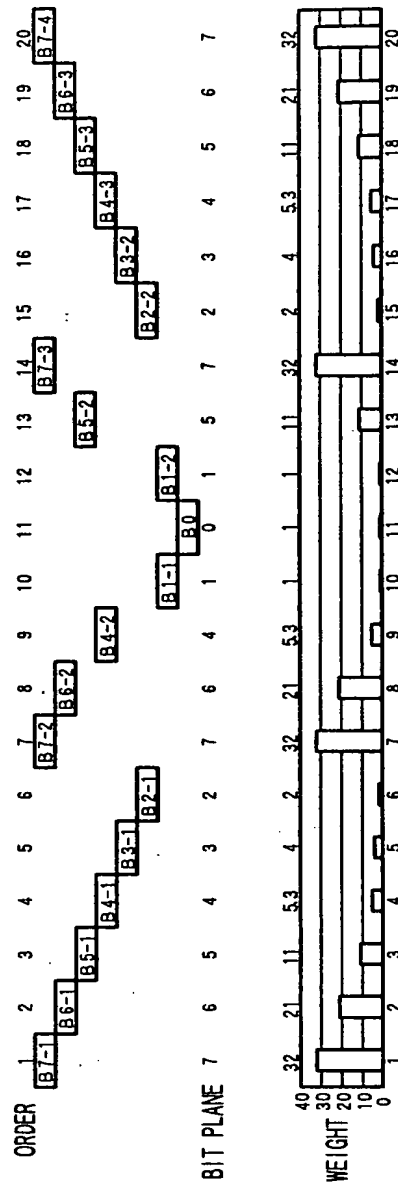


FIG. 31A

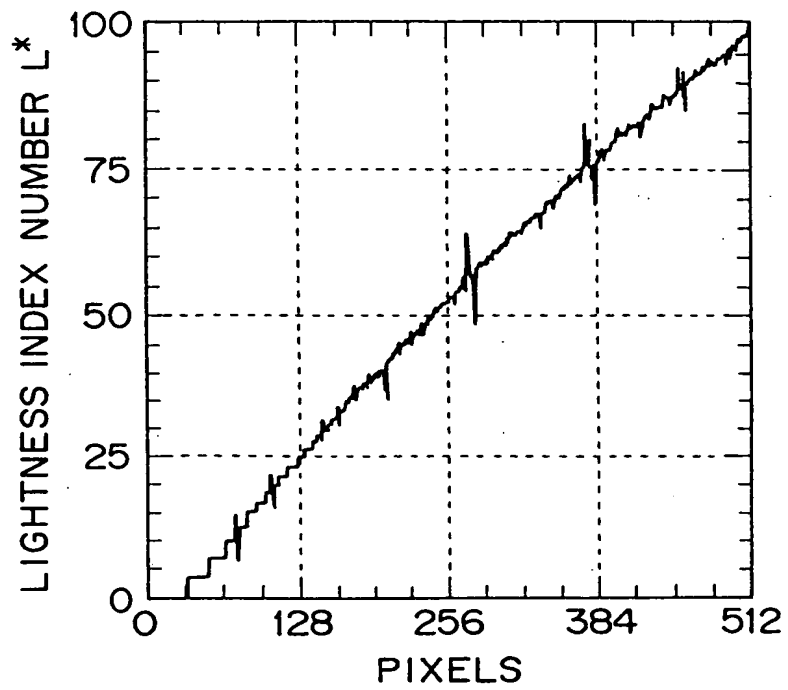


FIG. 31B

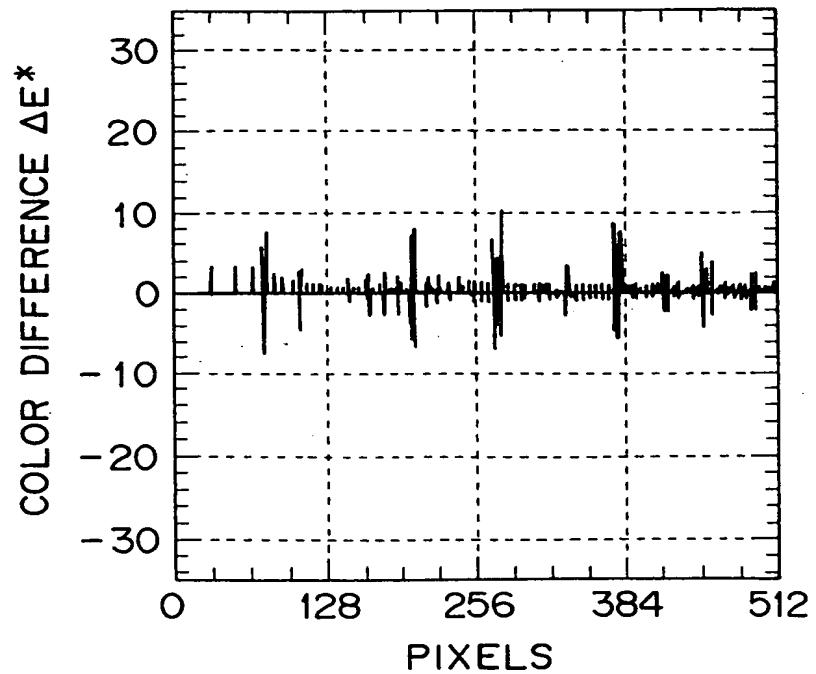


FIG. 32A

DIVISION		WEIGHT	DIVISION
NUMBER	WEIGHT		
MSB	128	4	32
B7	64	4	16
B6	32	3	10.67
B5	16	3	5.33
B4	8	2	4
B3	4	2	2
B2	2	1	2
B1	1	1	1
LSB	Blank		
TOTAL		20	

FIG. 32B

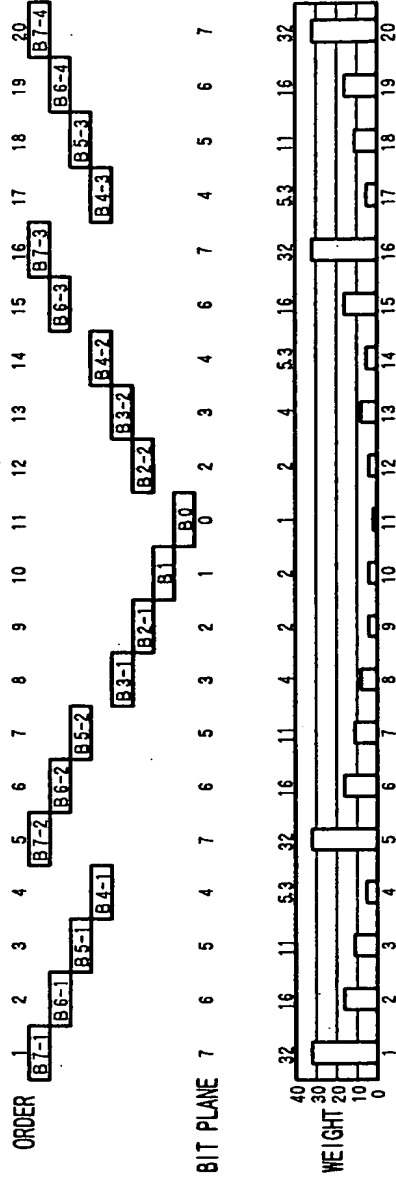


FIG. 33A

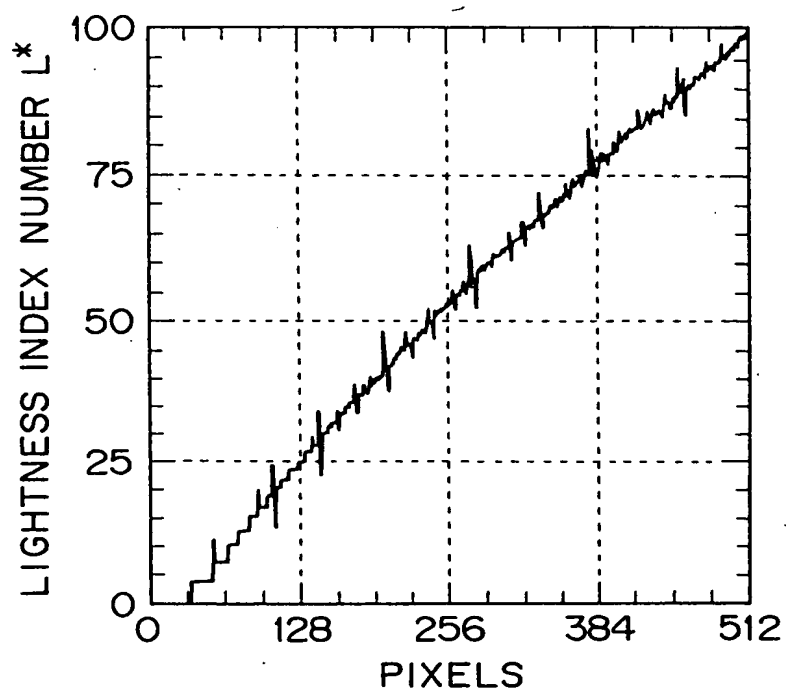


FIG. 33B

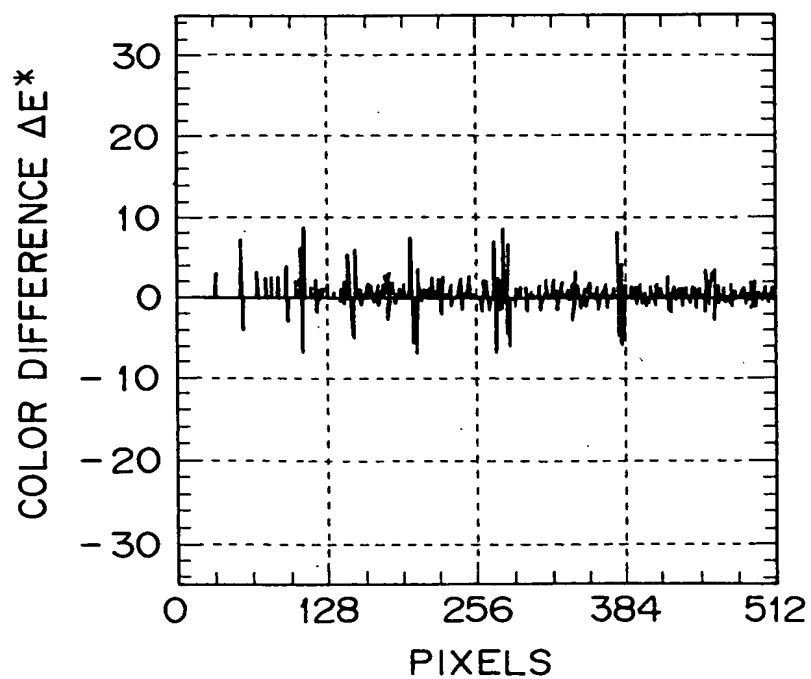


FIG. 34B

[illegible]

FIG. 35A

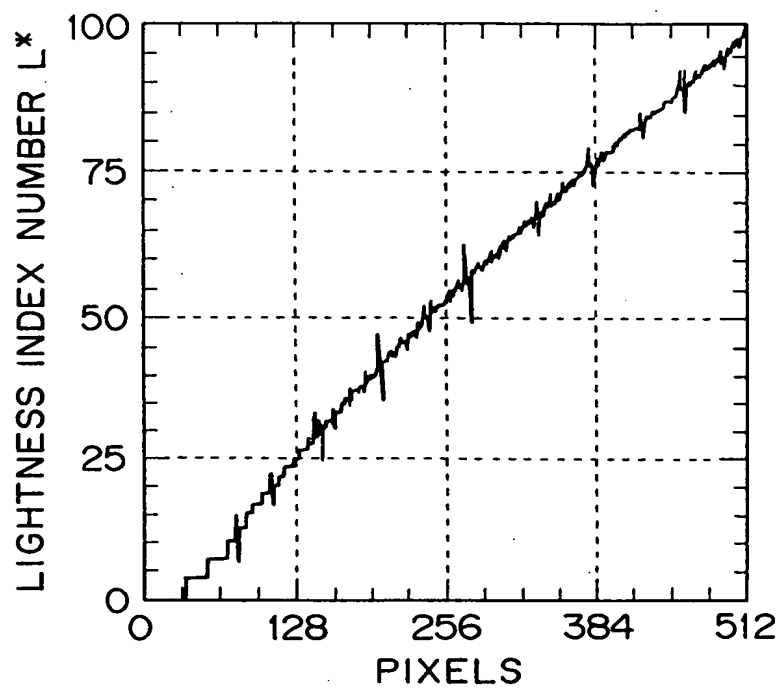


FIG. 35B

